Amendment to the Specification:

Please amend paragraph **[0031]** of the as-filed specification as follows:

[0031] Figure 3 illustrates the substrate cross section of Figure 2 following the deposition of silicon germanium 301 in the undercut etch 201 source and drain regions. The silicon germanium, as noted, can be represented by $Si_{1-x}Ge_x$. The domain of x is [0,1] ranging from pure silicon to pure germanium, and can be adjusted to tune the conductivity and band gap to the requirements of a particular device. **In an embodiment, x is approximately between 0.05 and 0.5 (e.g., approximately between 5% and 50% atomically germanium in the silicon germanium alloy).** In ~~an~~ **another** embodiment, x is approximately between 0.1 and 0.4 (e.g., approximately between 10% and 40% atomically germanium in the silicon germanium alloy). **In yet another embodiment x is approximately between 0.15 and 0.3 (e.g., approximately between 15% and 30% atomically germanium in the silicon germanium alloy).** The band gap energy associated with the silicon germanium 301 alloy can be approximated by the following equations:

$$E_g(x) = (1.155 - 0.43x + 0.0206x^2)\ eV \qquad \text{for } 0<x<0.85 \qquad (1)$$

$$E_g(x) = (2.010 - 1.27x)\ eV \qquad \text{for } 0.85<x<1 \qquad (2)$$

In an embodiment, therefore, according to equation (1) the band gap energy of the silicon germanium 301 is approximately between 1.13 eV and 0.95 eV for 5% atomically germanium and 50% atomically germanium respectively. In ~~an~~ **another** embodiment~~, therefore, according to equation (1)~~ the band gap energy of the silicon germanium 301 is approximately between 1.11 eV and 0.99 eV for 10% atomically germanium and 40% atomically germanium respectively. **In yet another embodiment the band gap energy of the silicon germanium 301 is approximately between 1.09 eV and 1.03 eV for 15% atomically germanium and 30% atomically germanium respectively.**